REMARKS

Status of Claims

Claims 2, 3, 8, 9, 22, 39, 42-47 and 49 are pending and under examination.

Claims 2, 3, 22, 39, 42, 46, 47 and 49 are amended, based on the very helpful suggestions of the Examiner, primarily (1) to link antecedent basis of the pathogen induction with the ability of the cis-elements to induce expression, and (2) to indicate that expression is of an operably linked nucleic acid.

Support for amendment of claims 2, 39 and 47 to recite about 10-fold higher than its activation, if any, by abiotic stress can be found in the combination of

- the paragraph bridging pages 2 and 3 of the specification, teaching that less than an about 10-fold induction of reporter gene expression may not be sufficient to supply biotechnological needs;
- the first full paragraph on page 3 "Thus, the technical problem of the present invention is to provide promoters that are rapidly and locally responsive to pathogen attack but show negligible activity in uninfected parts of the plant and that can be used for engineering of disease resistant crops"; and
- page 3, first full paragraph, last sentence: "Preferably, the induction from the chimeric promoter upon pathogen attack or elicitor treatment is at least about 10-fold higher, preferably 20-fold higher and particularly 30-fold higher than its activation, if any, by abiotic stress."

Oath//Declaration

The Examiner indicates that the oath or declaration is defective because: Non-initialed and/or non-dated alterations have been made to the oath or declaration - the address for Kirsh has been altered with out initials.

In response, Applicants note that the alteration is a confined to the address of inventor Kirsch. As indicated in MPEP 602.01, in some cases, a deficiency in the oath or declaration can

be corrected by a supplemental paper such as an application data sheet (see 37 CFR 1.76 and MPEP § 601.05) and a new oath or declaration is not necessary. See 37 CFR 1.63(c)(1) and (c)(2). On the other hand, under 37 CFR 1.56(c), "Application papers containing alterations made after the signing of an oath or declaration referring to those application papers must be supported by a supplemental oath or declaration under § 1.67."

Accordingly, Applicants submit herewith

(1) a new Application Data Sheet showing the corrected address of the inventor, and

(2) a supplemental Declaration newly executed by inventor Kirsch only, with changes to the address dated and initialed by the inventor.

It is respectfully submitted that the submission of this Application Data Sheet and supplemental Declaration, taken with the previously filed Declaration, satisfy the requirements of 37 CFR §1.67(a).

Claim Objections

Claims 2, 3, 22, 39, 42, 46, 47 and 49 are objected to: the claims have been found to have several informalities in clarity or concise antecedent basis for which amendments are recommended below. For example, the recitation in the preamble that the promoter is "capable of local gene expression" requires recitation -of an operably linked nucleic acid sequence-- followed by amendment in the body of the claim to --expression of the nucleic acid sequence--. As well, the references throughout the claims to pathogen infection, pathogen elicitor treatment or both are not consistently referenced and should be amended to indicate the same terms throughout. Finally, the recitation "comprising" due to the lengthy preamble loses significance and should be amended to --the promoter comprising-- or --the method comprising--

The Examiner provides specific guidance for amendment of the claims.

In response, Applicants submit herewith claims amended according to the proposals of the Examiner.

Claim Rejections - 35 USC § 112, first paragraph

Claims 2, 8, 9, 39 and 44-47 are rejected under 35 U.S.C. 112, first paragraph. The Examiner indicates that the actual combination of elements to provide specific inductive levels does not really meet a pattern, thus could not be predicted, thus [for claims reciting specific ranges of induction] the claims must be limited to the exemplified combinations which actually achieve the specific claimed inductive levels. The disclosed combinations provide a large genus of promoters wherein the ability to predict function is uncertain.

More specifically, the specification, while being enabling for

1) a chimeric promoter capable of mediating local gene expression in plants upon pathogen infection or pathogen elicitor treatment and induction is **between 10 and 15 fold** wherein the promoter

comprises 4 copies of SEQ ID NO:11 followed by 4 copies of SEQ ID NO:7,

consists of SEQ ID NO:11,

comprises 4 copies of SEQ ID NO:11,

comprises one copy or 4 copies of SEQ ID NO:11 followed respectively by one copy or 4 copies of SEQ ID NO:3 or 4 or

2) a chimeric promoter capable of mediating local gene expression in plants upon pathogen infection and induction is **between 15 and 81 fold** wherein the promoter comprises either

two copies of SEQ ID NO:11 or

one copy of SEQ ID NO:11 followed by one copy of SEQ ID NO:7 or

4 copies of SEQ ID NO:11 followed by four copies of SEQ ID NO:7 or

two copies of SEQ ID NO:3 or 4 followed by two copies of SEQ ID NO:11 or

two copies of SEQ ID NO:1 followed by two copies of SEQ ID NO:11,

the specification does not reasonably provide enablement for any other embodiment. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims. **This is a new rejection.**

According to the Examiner, given the lack of guidance in the specification, the large and diverse group of chimeric promoters recited and the highly unpredictable nature of the ability to predict components to produce a promoter with specific induction levels, it is concluded that a person of skill in the art would have had to conduct undue experimentation.

In response, Applicants respectfully submit that the present invention broadly teaches *cis*-acting elements that are capable of inducing high level expression of a given DNA sequence - up to 400-fold induction; see, e.g., Example 1. The specification demonstrates that the combination of otherwise weak *cis*-acting elements can provide for a substantial increase of the overall inducibility of the chimeric promoter. It is not necessary to recite specific ranges of induction levels in the claims. Thus, the rejection is overcome by deleting the claimed specific ranges of induction from the rejected base claims.

Applicants nevertheless,

- having generally disclosed than an about 10-fold induction of reporter gene expression may not be sufficient to supply biotechnological needs (paragraph bridging pages 2 and 3 of the specification), and
- teaching that the technical problem of the invention is to provide promoters that are rapidly and locally responsive to pathogen attack but show negligible activity in uninfected parts of the plant and that can be used for engineering of disease resistant crops (first full paragraph on page 3), and
- teaching: "Preferably, the induction from the chimeric promoter upon pathogen attack or elicitor treatment is at least about 10-fold higher, preferably 20-fold higher and particularly 30-fold higher than its activation, if any, by abiotic stress." (page 3, first full paragraph last sentence)

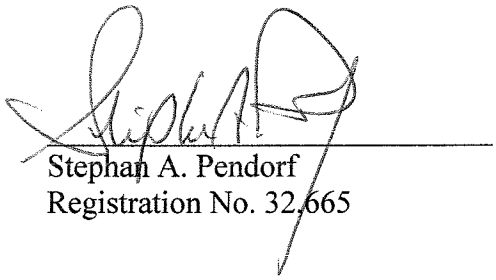
have amended claims 2, 39 and 47 to recite that the level of induction is at least that amount sufficient to supply biotechnological needs, i.e., about 10-fold induction.

Accordingly, withdrawal of all rejections and early issuance of allowance is respectfully requested.

The Commissioner is hereby authorized to charge any fees which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account Number 16-0877.

Should further issues remain prior to allowance, the Examiner is respectfully requested to contact the undersigned at the indicated telephone number.

Respectfully submitted,



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